From: Becher, Kent
To: pappel@eaest.com
Cc: lvega_eaest.com; Jonathan Thomas; Coltrain, Katrina; Kent Becher
Subject: Re: FW: Wilcox Oil Site Water Well Survey
Date: Friday, September 16, 2016 10:36:10 AM

Thanks Patrick. Thank you for providing ventilation. I was just concerned that we weren't prepared for APRs. I do have one more question. Are you planning to pull the pumps on the other two wells? If time allows we might be able to get 4 wells if that helps all of you for your work out there.

Take care.

Kent Becher
Hydrologist
USGS Technical Liaison EPA Region 6 Superfund Division
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On Fri, Sep 16, 2016 at 10:11 AM, Appel, Patrick <pappel@eaest.com> wrote:

> Hi Kent – to close the loop on your questions highlighted below - yes, EA will use engineering controls to ventilate the shed.
>
> Thank you
> Pat
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> ---
>
> **From:** Coltrain, Katrina [mailto:coltrain.katrina@epa.gov]
> **Sent:** Thursday, September 15, 2016 3:42 PM
> **To:** Becher, Kent <kdbecher@usgs.gov>; Jonathan Thomas <jvthomas@usgs.gov>
> **Cc:** Vega, Luis <lvega@eaest.com>; Appel, Patrick <pappel@eaest.com>
> **Subject:** RE: FW: Wilcox Oil Site Water Well Survey
>
> Kent, as relayed in the email, additional ventilation is a consideration and will most likely be the course of action taken such that APRs are not needed. Also, the list indicates that there are two wells for geophysics with the possibility of the third being GW-13.
>
> I suggest that if there are other discussion topics that a call with Pat/Luis would be the best means of sharing information. This would provide the opportunity for more understanding

of the conditions present at the well site and what options are available.

Katrina Higgins-Coltrain

Remedial Project Manager

US EPA Region 6

LA/OK/NM Section (6SF-RL)

1445 Ross Avenue

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214-665-8143

From: Becher, Kent [mailto:kdbecher@usgs.gov]
Sent: Thursday, September 15, 2016 3:26 PM
To: Coltrain, Katrina <coltrain.katrina@epa.gov>; Jonathan Thomas <jvthomas@usgs.gov>
Cc: Kent Becher <kdbecher@usgs.gov>
Subject: Re: FW: Wilcox Oil Site Water Well Survey

I talked to Jon. We weren't anticipating the use of APR's for this work and we don't currently have any APRs since we have never had to go to above level D at a site in the 10 years I have been working with EPA. The best option is to obtain better ventilation. Is EA willing to ventilate the shed or do we need to do it?

Our staff doesn't need to be in the shed for long periods of time. They will drop in the tool and then move to the truck to run the tool. It is good that EA did check the shed for VOCs. We are assuming that they will be with our staff and have a PID. Of course a safe environment for our employees is very important. If ventilation doesn't work to drop VOCs near then at this point we really don't have much of option. We can't have employees being exposed to COCs that might be above a TWA. One other option is if EA has someone in a APR help guide down the tool in the shed. Would that an option?

Also, it appears that based on the list only two wells (maybe one now) will be available for geophysics. If there are any other wells at the site that can have geophysics completed on them our staff will be glad to do them.

Thanks.

Kent Becher

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On Thu, Sep 15, 2016 at 11:16 AM, Coltrain, Katrina <coltrain.katrina@epa.gov> wrote:

> Kent, see the descriptions below. Specifically, GW-10 which is the product well.
>
> Katrina Higgins-Coltrain
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> **From:** Appel, Patrick [mailto:pappel@eaest.com]
> **Sent:** Thursday, September 15, 2016 8:09 AM
> **To:** Coltrain, Katrina <coltrain.katrina@epa.gov>
> **Cc:** lvega_eaest.com <lvega@eaest.com>
> **Subject:** Wilcox Oil Site Water Well Survey

Hi Katrina -

The team completed water supply well survey we completed yesterday (please reference attached Figure 12 from the SAP):

- GW-01 is actually the older of the well pair (GW-02) located on this property, and has been P&Aed (mis-designated on SAP Figure 12); this well cannot be sampled or logged.

- GW-02 is described as being P&Aed, but it is the newer active well on this property (mis-designated on SAP Figure 12). Although GW-02 has a pump in place, there is no power supply (house is currently vacant). We might be able to collect a tap sample from this well using a portable generator, but we cannot guarantee that the in-place submersible pump is functional or that it won't incur damage from powering it up. We would have to pull the pump assembly to allow USGS to geophysically log this well.

- GW-03 is an active well from which we can collect a tap sample.

- GW-04 is an active well from which we can collect a tap sample.

- GW-05 is an active well, but the current resident has refused access for tap sampling.

- GW-06 is an active well from which we can collect a tap sample.

- GW-07 is an active well from which we can collect a tap sample. There is also a second well located in the front yard; however, we were not able to determine if its pump is functional (possible irrigation well?). Geophysical logging would require pulling the downhole pump assembly.

- GW-08 is an active well from which we can collect a tap sample.

- GW-09 is an active well from which we can collect a tap sample. There is also an irrigation well on the property used for watering the yard and filling the swimming pool.

- GW-10 is the inactive well located on the Lorraine Process Area (abandoned church). Initial gauging using an interface probe indicated 6 feet of LNAPL above the water column (black semi-viscous liquid that smelled of kerosene), which is equivalent to about 6 gallons of LNAPL in a 5-inch-diameter casing. After bailing about 7-8 gallons of LNAPL, re-gauging indicated 2 feet of LNAPL above the water column. Based on this, we can assume that LNAPL continues to flow into well casing even after bailing. We will re-gauge tomorrow to evaluate LNAPL recovery. It may not be possible to totally remove all of the LNAPL in the well casing prior to geophysical logging activities. In addition, PID readings during bailing indicated 3-7 ppm in the breathing zone and 230 ppm at the well head. Per the HASP, we recommend improving ventilation within the shed using an engineering control (possibly using a fan) during bailing/sampling/logging activities or use of an APR (Level C).

- GW-11 appears to be inactive (homeowner is on City water) and tap sampling is unlikely. Because the homeowner is deaf, Todd Downham (ODEQ) indicated that he would communicate with her via text; we will re-evaluate tomorrow or next week.

- GW-12 is an active well from which we can collect a tap sample.

- GW-13 has a pump in place, but there is no power supply (house is currently vacant). We might be able to collect a tap sample from this well using a portable generator, but we cannot guarantee that the in-place submersible pump is functional or that it won't incur damage from powering it up. We would have to remove the roof of the well house and pull the pump assembly to allow USGS to geophysically log this well, which may result in damage and possible replacement.

- GW-14 is an inactive well with no downhole pump assembly or well house (covered with a 5-gallon bucket). Depth to water was 22.76 feet and total depth was 110.74 feet. We will be able to sample this well via low-flow sampling. USGS should also be able to geophysically log this well.

- GW-15 is an inactive well partially covered with a loose metal lid (not properly sealed against infiltration). During gauging, we encountered an obstruction at 13.1 feet below top of casing. Odors emanating from the well (and maggots observed on the interface probe) indicated that the obstruction is likely a dead animal. This well is not suitable for sampling or logging, unless the obstruction can be removed. We have no information about the well below the obstruction.

In summary:

- We currently only have 2 wells (GW-10 and GW-14) that are viable candidates for geophysical logging by USGS next week.

- We have 2 wells (GW-02 and GW-13) that are also good candidates for geophysical logging, but we would have to arrange to have the pumps pulled.

- Several active wells are also candidates for logging (any of the wells scheduled for tap water sampling), but they would require having the pumps pulled and present an inconvenience to the current resident.

- We should be able to collect tap water samples from 8 active wells (GW-03, GW-04, GW-05, GW-06, GW-07, GW-08, GW-09, and GW-12); there are also 1 functional irrigation well (same property as GW-09) that could be alternate for tap water sampling.

- We should be able to sample 2 wells (GW-10 and GW-14) using low-flow sampling methodology.

Please contact me with any questions.

Thanks

Pat